

CLAIMS

1. A diamond blade formed by providing slots (7) on the outer peripheral edge of a circular core (2) and fixing a superabrasive layer (3, 4) to a portion of the outer peripheral surface of said core located between said slots (7), wherein

5 said superabrasive layer (3, 4) includes a first superabrasive layer (3) having an extension (3a) formed by partially extending said superabrasive layer toward the inner periphery of the core (2) and a second superabrasive layer (4), a reinforcing superabrasive layer (5) extending from the outer periphery toward the inner periphery of 10 said core is formed on the inner peripheral side of said second superabrasive layer (4) while said reinforcing superabrasive layer (5) is located closer to the outer periphery than a radial central portion (O) of the core and an outer peripheral end (5a) of said reinforcing superabrasive layer (5) is located closer to the outer periphery than an inner peripheral end (3b) of the extension (3a) of said first superabrasive layer.

15 2. The diamond blade according to claim 1, wherein a stressing layer is circumferentially continuously or intermittently formed on the radial central portion of said core (2).

20 3. The diamond blade according to claim 1, wherein said second superabrasive layer (4) is provided with an extension (4a) having a relatively short radial length with respect to the extension (3a) of said first superabrasive layer.

25 4. The diamond blade according to claim 3, wherein the extension (4a) of said second superabrasive layer is formed to a side closer to the inner periphery than a line connecting innermost portions of adjacent slots (7) with each other.

5. The diamond blade according to claim 1, wherein said first superabrasive

layer (3), said second superabrasive layer (4) and the reinforcing superabrasive layer (5) and said core (2) are bonded to each other by simultaneous sintering.

6. The diamond blade according to claim 5, wherein a bond for said reinforcing
5 superabrasive layer (5) consists of a bond reaching the maximum density at a lower
temperature than bonds for said first superabrasive layer (3) and the second
superabrasive layer (4).

7. The diamond blade according to claim 1, wherein through holes (9) or
10 through grooves (8) are provided on portions of said core (2) provided with said first
superabrasive layer (3), the second superabrasive layer (4) and the reinforcing
superabrasive layer (5).

8. The diamond blade according to claim 1, wherein said second superabrasive
15 layer (4) and said reinforcing superabrasive layer (5) are discontinuously formed in the
radial direction.

9. The diamond blade according to claim 1, wherein said first superabrasive
layer (3), said second superabrasive layer (4) and the reinforcing superabrasive layer (5)
20 are formed with grooves (6).